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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,496	07/22/2003	Naohiro Tabata	O3020.0348/P348	6350
24998	7590	05/14/2007		
DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			EXAMINER LIEW, ALEX KOK SOON	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 05/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,496	<b>Applicant(s)</b> TABATA, NAOHIRO	
	<b>Examiner</b> Alex Liew	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The amendment filed on April 11, 2007 is entered and made of record

### **Response to Applicant's Arguments**

On page 7 on the first paragraph, the applicant argues Konen (US pat no 6,922,478) does not disclose an apparatus of claim 1 'makes determinations based at least in part on a "position of the person",' where Konen only determines intrinsic movements. The examiner agrees with the applicant where the center of gravity of Konen does not change over time, only intrinsic movements are present.

In the examiner's new search, Hsieh (US pat no 7,003,135) discloses detecting movements of individuals, where they enter or exit into current frame by using correlation techniques (see figure 2 – correlation technique is use to find position of the face to see if the face had left the current). Once it is determined that the old face is still in the system, the old face is stored in a storage medium, column 5 lines 64 – 67.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1 – 6 are rejected under U.S.C. 103(a) as being unpatentable over Hsieh ('135) in view of Rui (US pat no 7,130,446).

With regards to claim 1, Hsieh discloses an authentication system, which collates an image obtained by photographing a person comprising

- detection means for detecting positions of the person from a plurality of images acquired by consecutively photographing the person (see figure 1 – tracking the face image within a frame, there must be a step where the position of the face is determined),
- calculation means for calculating a variation between a position of the person at a current time and a position of the person at previous time, which are detected by detected means (see figure 2 – correlation methods are used to determine whether the current frame contains a old face of new face),
- determination means for comparing the variation calculated by the calculating means with a predetermined threshold to determine that an image of the plurality of images is a verifiable image when the variation is greater than a predetermined threshold and does not verify plurality images when variation is less than the threshold (see figure 2 – if the correlation value is greater than the threshold value than the face is verified) and
- storing means for verifying and storing image (see figure after the face is verified, the face image is store in a storage medium).

Hsieh does not disclose the verification rule as taught in claim 1 of the present invention. Rui teaches generating sum of frame differences of each possible segment of each horizontal line of the frame area (see figure 5). When this sum of frame difference is large it shows, there was a large change from the previous image to the current image indicating there might not be anyone within the current frame or a different person within the current frame and if the sum of frame difference is small it shows, there was little change from the previous image to the current image, indicating the person in the previous frame may still be in the current frame. Rui also teaches updating / registering face when face is verified (see figure 7 – 336, 328 and 330).

One skill in the art would include using sum of frame difference over correlation methods because finding the difference between previous and current requires less calculation than using correlation method, which saves computation time.

With regards to claim 2, Hsieh discloses a determination means determines the image of the plurality of images to be unregistrable when the variation calculated by the calculation means is under the threshold and determines that those images among the plurality of images, which are acquired subsequent to the image of the plurality of images having been determined to be unregistrable, are all unregistrable (see column 6 lines 1 – 5 – when the old face disappears from the current than the subsequent images does not contain the old face).

With regards to claims 3 and 5, see the rationale and rejection for claim 1.

With regards to claims 4 and 6, see the rationale and rejection for claim 2.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**Alex Liew**  
**AU2624**  
**5/8/07**



JOSEPH MANCUSO  
SUPERVISORY PATENT EXAMINER